

SITE NOTIFIED TO THE SECRETARY OF STATE ON 17 FEBRUARY 1997

COUNTY: DERBYSHIRE SITE NAME: LONG DALE, HARTINGTON

DISTRICT: DERBYSHIRE DALES

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended.

Local Planning Authority: PEAK DISTRICT NATIONAL PARK AUTHORITY,
Derbyshire Dales District Council

National Grid Reference: SK 140619 Area: 52.5 (ha.)

Ordnance Survey Sheet 1:50,000: 119 1:10,000: SK 16 SW

Date notified (Under 1981 Act): 1997 Date of Last Revision: –

Other Information:
New site.

Description and Reasons for Notification:

The White Peak of Derbyshire and Staffordshire is one of the most important areas of carboniferous limestone in Britain. The limestone is cut by valleys, the 'dales', which expose areas of high geological and geomorphological interest, and support a range of important semi-natural woodland, scrub, grassland and stream habitats. Of particular importance is the variety of daleside grasslands, which show similarities to those found in other notable limestone areas, such as the lower hills of the Somerset Mendips and the higher Craven area of Yorkshire. This gives rise to a distinctive assemblage of calcicolous grasslands, with a number of communities and species typical of either more northerly or southerly limestone grasslands, here being found together.

The dales vary widely in their orientation and this, together with differences in slope, affects the development of soil types and plant communities. South facing slopes are warm and dry, in contrast to north facing slopes which are cool and moist, whilst the east facing slopes are slightly cooler than those which face west. The most common soils of the steeper dalesides are shallow, nutrient-poor, well-drained rendzinas, high in calcium carbonate. Toward the plateau, downwash of loessic material combined with surface-leaching has reduced the calcium carbonate, and resulted in soils which are more acidic, and which tend to grade into deeper brown earths. Richer, moister soils cover the more variable deposits on the floor of the dales, and these areas tend to support neutral rather than calcareous plant communities.

Long Dale, towards the south of the Peak District limestone area, runs more or less north-south, with both the east and west facing slopes exhibiting extensive tracts of species rich limestone grassland. A small side dale running eastwards adds further variation in slope aspect. Limestone outcrops occur along the length of the dale, some forming cliffs up to 5 metres high. Below these rocky outcrops the slopes are steep, typically 20–30%, and here the characteristically thin soils support flower-rich calcicolous grassland. Above the cliffs the slopes are more gentle, and the deeper soils support neutral grasslands, with small areas which are more acidic.

Long Dale is of special importance for the extent and variation of flower-rich, unimproved limestone grasslands found throughout the site, which exhibit a range of communities including those more characteristic of the northern limestones and southern chalks. The swards are typified by a rich and attractive mixture of grasses,

sedges and herbs. They are dominated by meadow oat grass *Avenula pratense* and sheep's fescue *Festuca ovina*, with quaking grass *Briza media*, glaucous sedge *Carex flacca* and spring sedge *C. caryophyllea* common throughout. The herbs are abundant with most of the characteristic species of this grassland type being present, including salad burnet *Sanguisorba minor*, bird's foot trefoil *Lotus corniculatus*, small scabious *Scabiosa columbaria*, thyme *Thymus praecox* and mouse ear hawkweed *Hieracium pilosella*. Kidney vetch *Anthyllis vulneraria*, uncommon in the Peak District, and limestone bedstraw *Galium sternerii*, at the southern edge of its range in Britain, are also present in these communities at low frequencies. On the west facing slopes the sward is characterised by the frequent occurrence of stemless thistle *Cirsium acaule*, which is on the northern edge of its British distribution in the Peak District, with frequent autumn gentian *Gentianella amarella*, both of which are again found with quaking grass, meadow oat grass, thyme and glaucous sedge. Dropwort *Filipendula vulgaris*, another species more typical of the southern chalks, is found with autumn gentian on west facing slopes in the southern part of Long Dale.

On some north and east facing slopes, species more characteristic of northern limestone communities are found, including grass of Parnassus *Parnassia palustris*, a plant at the southern edge of its distribution in Britain, and, in addition to the more typical glaucous and spring sedges, flea sedge *Carex pulicaris* and carnation sedge *C. panicea* are frequent. Where, unusually, this community is present on a south facing slope, Frog orchid *Coeglossum viride* is found at a single locality with autumn gentian.

Elsewhere, particularly on the east-facing slopes, extensive areas of mesotrophic grassland cover the dale sides, with species such as crested dog's tail *Cynosurus cristatus*, sweet vernal grass *Anthoxanthum odoratum*, quaking grass, glaucous sedge, tormentil *Potentilla erecta*, ladies bedstraw *Galium verum*, bird's foot trefoil, and pignut *Conopodium majus*. Where these calcicolous and mesotrophic communities meet, an intermediate community is present, where crested dog's tail, sweet vernal grass and ox-eye daisy *Leucanthemum vulgare* are found with more lime-loving plants, including ladies bedstraw, grass of Parnassus, and on the steeper slopes, salad burnet, small scabious and thyme, creating an intricate mosaic of grassland types.

On the upper slopes, the calcareous grassland gives way to more acidic communities, where mat grass *Nardus stricta*, tormentil *Potentilla erecta* and, in one locality, bilberry *Vaccinium myrtillus* are frequent. Adder's-tongue *Ophioglossum vulgatum* and common twayblade *Listera ovata* have also been recorded in these communities.